

Date: Wed, 9 Feb 94 04:30:46 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #23
To: Ham-Space

Ham-Space Digest Wed, 9 Feb 94 Volume 94 : Issue 23

Today's Topics:

 APT-Satellites: Report FEB 05, 1994
 Daily IPS Report - 2 Feb 94
 Daily IPS Report - 8 Feb 94
 INMARSAT-B service provider
 Is a Kenwood TR-9000 any good?
 Please post FAQ
 Rocket Telemetry using Amateur Radio
 SAREX Update 2/7 at 1:30 UTC
 Two-Line Orbital Element Set: Space Shuttle

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 7 Feb 1994 10:00:36 GMT
From: library.ucla.edu!agate!howland.reston.ans.net!newsserver.jvnc.net!gmd.de!
peter.henne@gmd.de@network.ucsd.edu
Subject: APT-Satellites: Report FEB 05, 1994
To: ham-space@ucsd.edu

Observed at station 50.7 NLat, 7.1 ELon, FEB 05, 1994

NOAA-9: APT 137.62 On
NOAA-10: APT 137.50 ON again
NOAA-11: APT 137.62 On
NOAA-12: APT 137.50 On
Meteor 2-21: APT 137.85 On (weak)
Meteor 3-3: APT *OFF*

Meteor 3-4: APT *OFF*
Meteor 3-5: APT *OFF*
Meteor 3-6: APT *OFF*

Except for the poor Meteor 2-21 there was *NO* APT
from any other Meteor during all available daylight-
passes on Feb 05 and Feb 06 136.00 to 137.99 MHz.
VHF-conflict NOAA-10/NOAA-12 ended, NOAA-10 is active
again.

```
+-----+
|Peter Henne (peter.henne@gmd.de)      |
|          (henne@gmd.de)              |
|German Nat.Research Center.f.Comp.Science |
|D-53757 St.AUGUSTIN, Germany          |
+-----+
```

Date: 1 Feb 94 23:22:51 GMT
From: unogate!news.service.uci.edu!usc!cs.utexas.edu!uwm.edu!msuinfo!
harbinger.cc.monash.edu.au!bruce.cs.monash.edu.au!merlin!mel.dit.csiro.au!
its.csiro.au!dmssyd.syd.dms.@@mvp.saic.com
Subject: Daily IPS Report - 2 Feb 94
To: ham-space@ucsd.edu

IPS RADIO AND SPACE SERVICES AUSTRALIA
Daily Solar And Geophysical Report
Issued at 2330 UT 1 February 1994
Summary for 1 February and Forecast up to 4 February
No warning is current.

1A. SOLAR SUMMARY
Activity: Very low

Flares: None.

Observed 10.7 cm flux/Equivalent Sunspot Number : 094/040

1B. SOLAR FORECAST

	02 February	03 February	04 February
Activity	Very low	Very low	Very low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 090/034

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth : quiet

Estimated Indices :	A	K	Observed A Index 31 January
Learmonth	06	2222 2212	
Fredericksburg	07		08
Planetary	08		07

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
02 Feb	05	Quiet.
03 Feb	05	Quiet.
04 Feb	05	Quiet.

2C. MAGNETIC COMMENT

None.

3A. GLOBAL HF PROPAGATION SUMMARY

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
01 Feb	normal	normal	normal

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
02 Feb	normal	normal	normal
03 Feb	normal	normal	normal
04 Feb	normal	normal	normal

3C. GLOBAL HF PROPAGATION COMMENT

Sporadic E may affect F layer communications at middle latitudes.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were near predicted February values until 09UT, then 15-30% enhanced. Sporadic E may have affected F layer communications around 17 and 18UT.

T index: 61

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
02 Feb	70	Near predicted to 30% enhanced.
03 Feb	70	Near predicted to 30% enhanced.

04 Feb 70 Near predicted to 30% enhanced.

Predicted Monthly T Index for February is 30.

4C. AUSTRALIAN REGION COMMENT

F layer communications may be affected by sporadic E at times.

--

Dave Horsfall (VK2KFU) VK2KFU @ VK20P.NSW.AUS.OC PGP 2.3
dave@esi.COM.AU ...munnari!esi.COM.AU!dave available

Date: 8 Feb 94 09:59:25 GMT

From: munnari.oz.au!newshost.anu.edu.au!sserve!usage!metro!news.ci.com.au!eram!
dave@network.ucsd.edu

Subject: Daily IPS Report - 8 Feb 94

To: ham-space@ucsd.edu

IPS RADIO AND SPACE SERVICES AUSTRALIA

Daily Solar And Geophysical Report

Issued at 2330 UT 7 February 1994

Summary for 7 February and Forecast up to 10 February

IPS Warning 03 was issued on 03 Feb and is current
for interval 7-11 Feb.

1A. SOLAR SUMMARY

Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 096/043

1B. SOLAR FORECAST

	08 February	09 February	10 February
Activity	Very low	Very low	Very low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 097/044

1C. SOLAR COMMENT

None.

2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth : storm levels during local night.

Estimated Indices : A K Observed A Index 6 February

Learmonth	37	4436 6443	
Fredericksburg	43		39
Planetary	65		57

2B. MAGNETIC FORECAST

DATE	Ap	CONDITIONS
08 Feb	25	Active to minor storm.
09 Feb	20	Active.
10 Feb	20	Active.

2C. MAGNETIC COMMENT

Coronal hole induced magnetic activity continues.

3A. GLOBAL HF PROPAGATION SUMMARY

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
07 Feb	fair-normal	fair-normal	poor-fair
PCA Event : None.			

3B. GLOBAL HF PROPAGATION FORECAST

	LATITUDE BAND		
DATE	LOW	MIDDLE	HIGH
08 Feb	fair	poor	poor
09 Feb	normal	fair	poor
10 Feb	normal	fair	poor

3C. GLOBAL HF PROPAGATION COMMENT

Magnetic activity continues to degrade HF comms at high and mid lats.

4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were 10 to 30% below predicted monthly values

T index: -31

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
08 Feb	0	About 20% below predicted monthly values.
09 Feb	20	About 15% below predicted monthly values.
10 Feb	40	About 10% below predicted monthly values.

Predicted Monthly T Index for February is 30.

4C. AUSTRALIAN REGION COMMENT

HF comms were degraded on the 7th due to continuing magnetic activity. Degraded comms are expected until the 11th. Conditions should be improve slightly later today.

--

Dave Horsfall (VK2KFU) VK2KFU @ VK20P.NSW.AUS.OC PGP 2.3
dave@esi.COM.AU ...muninari!esi.COM.AU!dave available

Date: 8 Feb 1994 17:45:23 GMT
From: munnari.oz.au!spool.mu.edu!howland.reston.ans.net!pipex!warwick!str-ccsun!
strath-cs!st-and!Aberdeen!mph469@network.ucsd.edu
Subject: INMARSAT-B service provider
To: ham-space@ucsd.edu

INMARSAT-B space segment service provider needed urgently.
Please advice.

Sooriyajeevan

Date: 7 Feb 1994 17:33:41 GMT
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!spool.mu.edu!
olivea!inews.intel.com!scdt!dbraun@network.ucsd.edu
Subject: Is a Kenwood TR-9000 any good?
To: ham-space@ucsd.edu

Hello,

I was looking out for a 2M all-mode rig for possible satellite work,
and someone had a Kenwood (actually "Trio") TR-9000 rig for sale.
I know it's an older one, but is this one of the better rigs, or
is it a dog? What do you think they are worth now?

Thanks,

--

Doug Braun
N10WU

Intel Design Technology

408 765-4279

dbraun@scdt.intel.com

```

                        / decwrl \
                        | hplabs |
or maybe:             -| oliveb |- !intelca!mipos3!cadev6!dbraun
                        | amd    |
                        \ qantel /
```

"There is no human problem which could not be solved if
people would simply do as I advise." -- Gore Vidal

Date: 7 Feb 94 10:14:57 MDT
From: ihnp4.ucsd.edu!sdd.hp.com!swrinde!cs.utexas.edu!math.ohio-state.edu!
sol.ctr.columbia.edu!destroyer!ncar!csn!hellgate.utah.edu!cc.usu.edu!
sly46@network.ucsd.edu
Subject: Please post FAQ
To: ham-space@ucsd.edu

Please post the FAQs.

Thanx,
Markus

Date: 3 Feb 1994 19:39:08 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
cs.utexas.edu!swrinde!elroy.jpl.nasa.gov!news.larc.nasa.gov!nimbus.larc.nasa.gov!
watson@network.ucsd.edu
Subject: Rocket Telemetry using Amateur Radio
To: ham-space@ucsd.edu

Has anyone on this newsgroup ever used a transmitter aboard a
high power model rocket to send telemetry to a ground station?
The Langley chapter of the National Space Society is going to
build a high power rocket with one of the local schools and
we would like to get telemetry from the rocket, i.e., altitude,
downrange distance, and save the data to a computer file for later
analysis. We are also going to modify rawinsonde equipment to obtain
meteorological data from the rocket.

Any information on available boards, antennas, computer software, etc.
would be greatly appreciated.

Thanks in advance.

Catherine Watson, KD4SWF
watson@nimbus.larc.nasa.gov

Date: Sun, 6 Feb 1994 19:40:13 -0700
From: usc!math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!ve6mgs!
usenet@network.ucsd.edu
Subject: SAREX Update 2/7 at 1:30 UTC
To: ham-space@ucsd.edu

SB SAREX @ AMSAT \$STS-60.008
SAREX Update 2/7 at 01:30 UTC

Since the last update, SAREX has successfully completed another first. At 10:42 UTC on February 6, Sergei Krikalev, U5MIR, initiated contact with a school group at the House of Science and Technology for Youth in Moscow, Russia. This represents the first time a cosmonaut on a U.S. space shuttle has communicated with a group in Russia. Leo Lebutin, UA3CR and Valery Agabekov, UA6HZ were the prime school group coordinators for this contact. During the contact Aleksandr Kaleri, U8MIR, gave Sergei greetings from Russia. Six students were able to ask their questions to the crew on the Space Shuttle DIScovery. In addition, several cosmonauts were on hand to hear the communications. The SAREX contact was also broadcast live throughout Russia on HF (80 meters, 40 meters and 20 meters) as well as VHF.

The packet robot on the Space Shuttle Discovery has been quite busy today. At last report, the QSO sequence number was nearing the 2000 mark. Many hams from around the world have reported booming packet radio signals from the Shuttle Discovery.

Those of you who have heard or worked the STS-60 crew and wish to receive a QSL card need to send your signal report and an SASE or an envelope and IRCs to the following address:

STS-60 QSL
Education Activities Division
ARRL
225 Main St
Newington, CT 06111

The official SAREX element set for today will be GSFC-005. This element sent was generated by Ron Parise, WA4SIR of the Goddard Space Flight Center. Gil Carman, WA5NOM reports that the predictions using GSFC-005 differed from GSFC-003 by approximately 2 seconds during orbit 50.

STS-60
1 22977U 94006A 94 36.28433526 0.00000141 00000-0 54171-5 0 58
2 22977 56.9879 208.1294 0009042 265.9751 94.0283 15.72161107 297

Satellite: STS-60

Catalog number: 22977
 Epoch time: 94036.28433526 (05 FEB 94 06:49:26.57 UTC)
 Element set: GSFC-005
 Inclination: 56.9879 deg
 RA of node: 208.1294 deg Space Shuttle Flight STS-60
 Eccentricity: 0.0009042 Keplerian Elements
 Arg of perigee: 265.9751 deg
 Mean anomaly: 94.0283 deg
 Mean motion: 15.72161107 rev/day Semi-major Axis: 6730.8539 Km
 Decay rate: 0.14E-05 rev/day*2 Apogee Alt: 358.55 Km
 Epoch rev: 29 Perigee Alt: 346.38 Km

NOTE - This element set is based on NORAD element set # 005.
 The spacecraft has been propagated to the next ascending
 node, and the orbit number has been adjusted to bring it
 into agreement with the NASA numbering convention.

Submitted by Frank H. Bauer, KA3HDO, for the SAREX Working Group

/EX

 Date: Mon, 7 Feb 1994 16:31:19 MST
 From: agate!howland.reston.ans.net!math.ohio-state.edu!cyber2.cyberstore.ca!
 nntp.cs.ubc.ca!alberta!ve6mgs!usenet@network.ucsd.edu
 Subject: Two-Line Orbital Element Set: Space Shuttle
 To: ham-space@ucsd.edu

The most current orbital elements from the NORAD two-line element sets are
 carried on the Celestial BBS, (513) *253-9767*, and are updated daily (when
 possible). Documentation and tracking software are also available on this
 system. As a service to the satellite user community, the most current
 elements for the current shuttle mission are provided below. The Celestial
 BBS may be accessed 24 hours/day at 300, 1200, 2400, 4800, or 9600 bps using
 8 data bits, 1 stop bit, no parity.

Element sets (also updated daily), shuttle elements, and some documentation
 and software are also available via anonymous ftp from archive.afit.af.mil
 (129.92.1.66) in the directory pub/space.

STS 60
 1 22977U 94006A 94038.25000000 .00000289 00000-0 64918-5 0 91
 2 22977 56.9888 199.2915 0009132 272.8919 56.8375 15.72311414 588
 --

Dr TS Kelso
 tkelso@afit.af.mil

Assistant Professor of Space Operations
 Air Force Institute of Technology

End of Ham-Space Digest V94 #23
